Allied Vision

General

Model:	hr455CCX
Product code:	F004097
Product series:	HR CoaXPress
Status:	Available

Sensor

Sensor type:	Area scan
Chroma:	Color
Spectrum:	Visible
Spectral range:	400 nm to 1000 nm
Resolution:	9,568 × 6,380 (61.00 MP)
Sensor model:	Sony IMX455AQK
Sensor architecture (material):	cmos
Shutter type(s):	rolling-shutter
Sensor size:	35.98 × 23.99 mm (43.24 mm, 43.3mm (Type 2.7))
Pixel size:	3.76 µm × 3.76 µm

Pixel formats

Sensor bit depth:	8-Bit,10-Bit,12-Bit,16-Bit
RGB pixel formats:	bayer8, bayer10, bayer12, bayer16

Imaging performance

Dynamic range:	81.4 dB
SNR:	47 dB

Timing and gain

Max. frame rate:	18 fps
Exposure time:	60 µs (max)
Gain:	0.0 dB to 36.0 dB

I/Os and power

Non-isolated lines:	0 x LVDS input, 0 x LVDS output, 0 x TTL input, 0 x TTL output, 2 x 24V input, 4 x Open drain output,
Specific non-isolated lines:	1 x RS232 input, 1 x RS232 output, 0 x RS422 input, 0 x RS422 output,
Opto-isolated lines:	1 x Optical isolated input, 0 x Optical isolated input,
Power supply:	10 to 25VDC
Power consumption:	External: 14 W (typical)

Mechanical properties

Body dimensions (L x W x H in mm):	78 × 70 × 70
Filter/protection glass:	N-BK7 - AR coating
IP class:	IP30
Lens mount(s):	M58x0.75
Weight:	420 g

On-board memory and FPGA

Non-volatile memory (Flash):	160 MByte

Interfaces

Digital interface:	cxp-6 with 4 connections
Interface connector:	(Din1.0/2.3)

FW features - image control

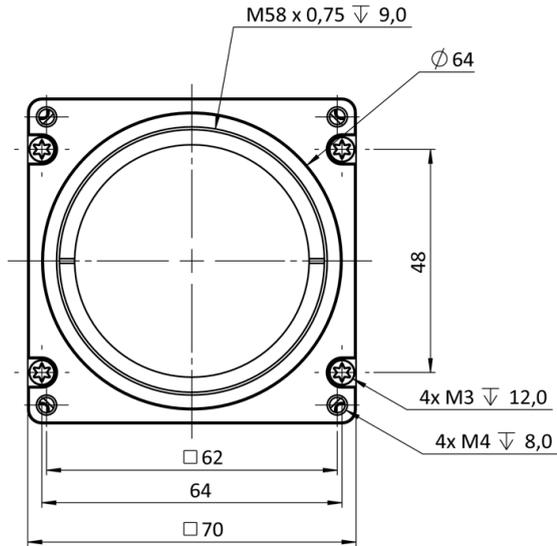|	
Exposure modes:	Manual, Auto
Gain modes:	Auto, Manual
White balance modes:	auto, manual
Image control features:	FW Features - Image Control

FW features - camera control

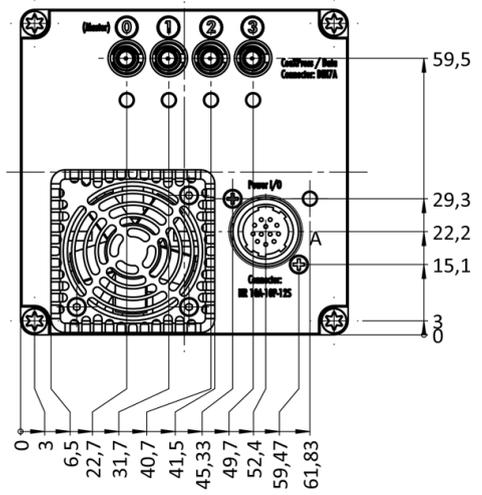|	
Trigger modes/sync:	INTERNAL,SOFTWARE,EXTERNAL
Camera control features:	PoCxP, User Sets, PWM(4), Sequencer,

Color
(Characteristics in the wafer status)

front

M58 x 0,75 ⟱ 9,0

⌀ 64

48

4x M3 ⟱ 12,0

4x M4 ⟱ 8,0

☐ 62

64

☐ 70

back

59,5

29,3

22,2

15,1

3
0

0
3
6,5
22,7
31,7
40,7
41,5
45,33
49,7
52,4
59,47
61,83

cross section

1 Glass

11,48 optical distance

SVS-VISTEK
HR

77,5
58,5
48,1
15,8
5,8
0

right side

19,5

12

4 x M4 -6H ⟱ 5
same from left

60

SVS-VISTEK
HR

top

bottom

1/4-20 UNC ⟱ 5

19,5

12

24,3

4 x M4 - 6H ⟱ 5
same from top

60

3D

I/O pin assignment

Hirose 12 Pin
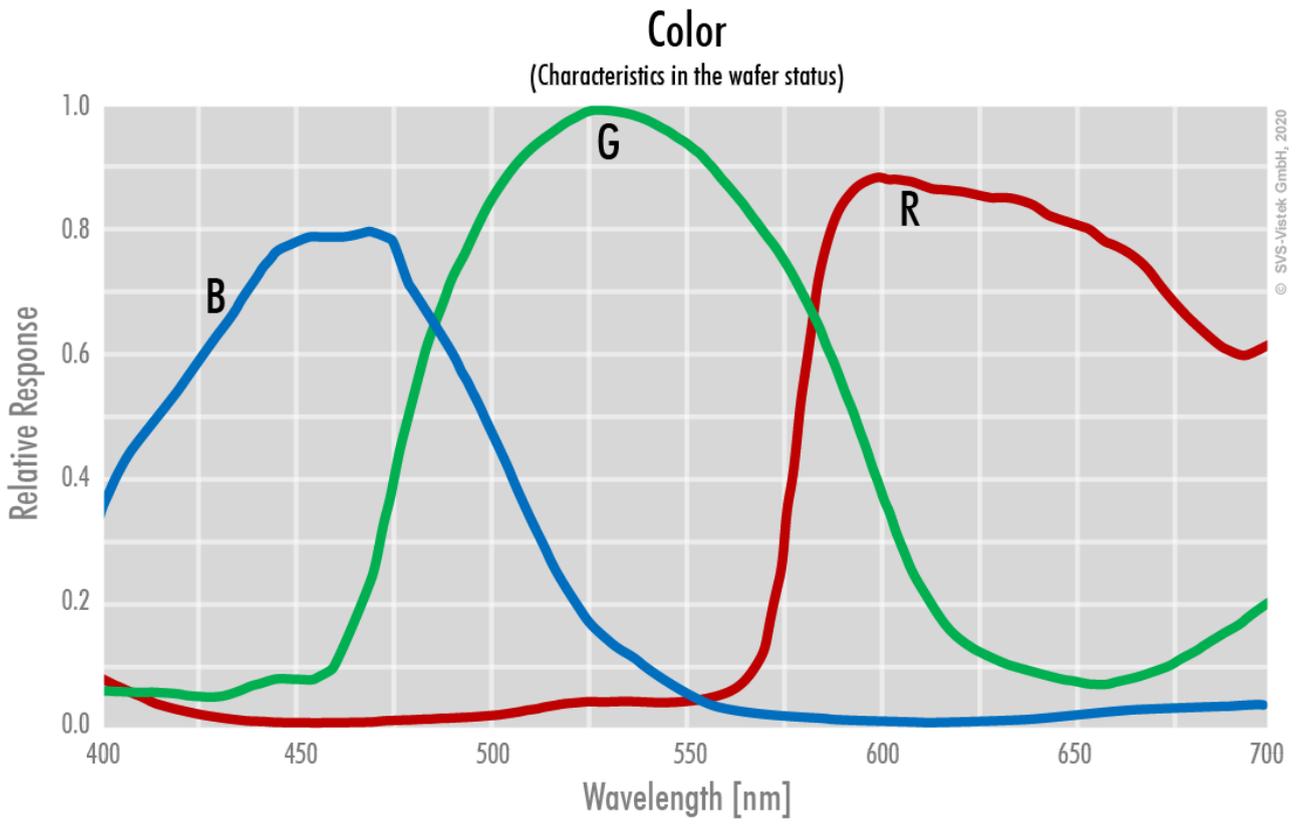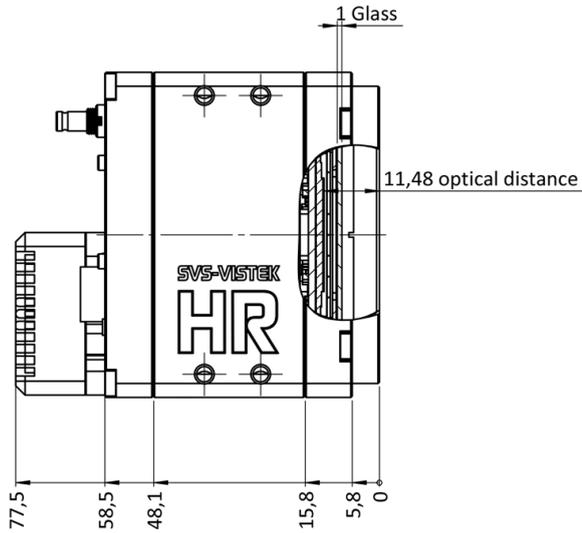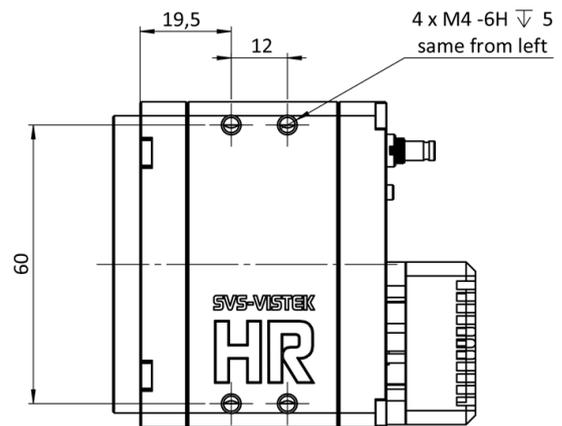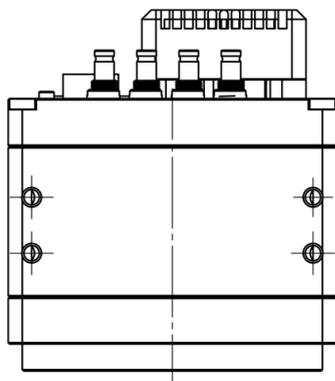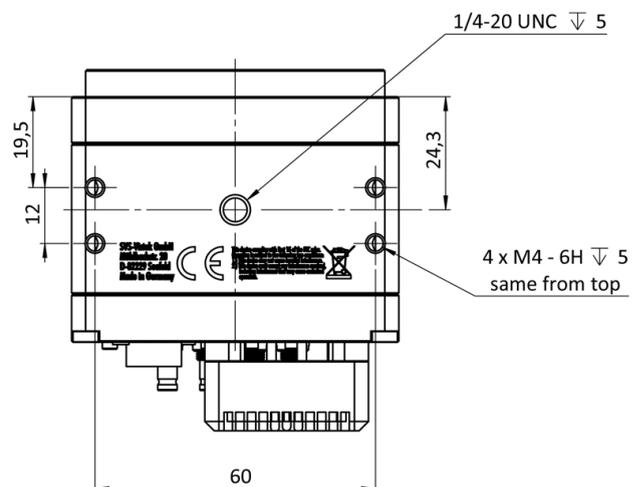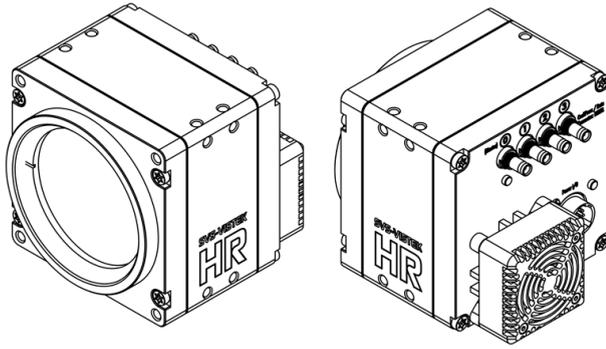
1	VIN −	(GND)		7	OUT 1	(open drain)
2	VIN +	(10 V to 25 V DC)		8	OUT 2	(open drain)
3	IN 4	(RXD RS232)		9	IN 3 +	(opto In +)
4	OUT 4	(TXD RS232)		10	IN 3 −	(opto In −)
5	IN 1	(0-24V)		11	OUT 3	(open drain)
6	IN 2	(0-24V)		12	OUT 0	(open drain)